

VOLUNTEER MONITORING IN **THE MILLSTONE WATERSHED**

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OUTLINE

- Description of our volunteer water quality monitoring program, StreamWatch
- How we manage StreamWatch volunteers
 - Recruit
 - Retain

STREAMWATCH

- StreamWatch is a citizen monitoring program that employs the watchful eyes and willing hands of volunteers to help protect water quality and habitat in the Millstone River Watershed.
- It was developed after research showed that no public agency was monitoring our waterways on a consistent basis.
- Since government agencies cannot control all the collective and individual actions that harm our environment, it is important for everyone to play a role in the stewardship of the natural world.

STREAMWATCH'S FOUR GOALS

- 1. To characterize the water quality of streams, rivers, and lakes in the Millstone Watershed.**
- 2. To involve citizens in observing, monitoring, recording, and reporting stream conditions.**
- 3. To motivate the public to initiate change in their use of the land and drainage systems that will enhance water quality.**
- 4. To provide quality data to decision-makers which may bring about improvement in water quality.**

RATs



- Started in 1996
- Visually assess the health of waterways by noting erosion, algal blooms, and land use changes
- 14 stream segments walked 4 – 6 times per year by 22 volunteers

BATs

- Started in 1996
- Monitor aquatic macroinvertebrate populations to determine impact of pollutants on stream quality
- 13 sites monitored in March, July and October by 26 volunteers

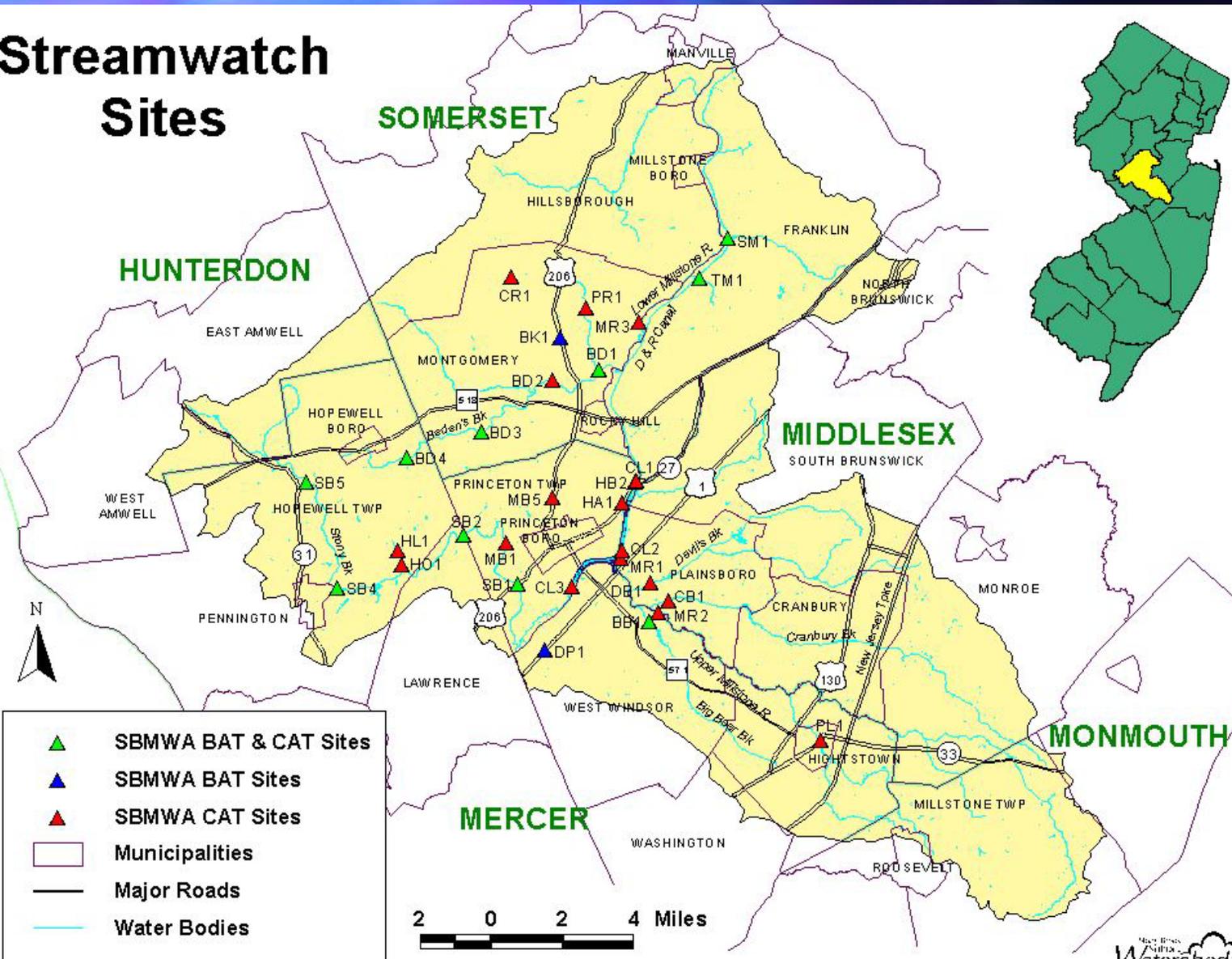


CATs

- Started in 1992
- Chemically measure 6 parameters to determine water quality
- 27 sites within the Millstone Watershed monitored every other weekend throughout the year by 59 volunteers



Streamwatch Sites



- ▲ SBMWA BAT & CAT Sites
- ▲ SBMWA BAT Sites
- ▲ SBMWA CAT Sites
- Municipalities
- Major Roads
- Water Bodies



Jennifer Parid - All data from NJ DEP 1998 except Roads from US Census TIGER files 1990. This map was developed using NJ DEP GIS digital data, but this secondary product has not been verified by NJ DEP and is not a title authorized.



HOW DO WE RECRUIT VOLUNTEERS?

WE REACH OUT TO VOLUNTEERS

- Organization Newsletter, *The Wellspring*
- Public/Town Meetings
- Displays at Community Events

HOW DO WE RECRUIT VOLUNTEERS?

HAVE OTHERS REACH OUT TO US

- Internet Agencies
 - www.handsonhelpers.org
 - www.volunteermatch.org
- Advertise on our Web Site
- Newspapers
 - Press Releases
 - Photo-Opportunities

'TRICKS OF THE TRADE'

- **Take Advantage of Earth Day, National Rivers Week, Wetlands Month, National Monitoring Day, etc.**
 - Use these times of year to recruit when people's minds are more environmentally-focused.
- **Know the Badge/Patch Requirements for Boy & Girl Scouts in your area**
 - Use your project as a 'carrot' so that you can increase their motivation to help.

'TRICKS OF THE TRADE'

- **Use Current Volunteers to Pitch the Monitoring to their Friends & Family**
- **When Sending Out Press Releases The More Local the Newspaper the Better**
- **Increase the Intensity of Recruitment Efforts as You Get Closer to Training Session**

KEEPING VOLUNTEERS INTERESTED

KEEP THEM INFORMED - We publish a quarterly newsletter, *The StreamWatcher*, for our volunteers, environmental commissions and planning boards for towns in our watershed, and other watershed associations throughout New Jersey.

KEEPING VOLUNTEERS INTERESTED



Watershed Management Mission
Protecting and enhancing our watershed through chemical, physical and biological monitoring, restoration, appropriate action and education. Volunteers are the key!

WATERSHED MANAGEMENT STAFF

George Hawkins
Executive Director

Noelle Mackay
Director, Watershed Management

Andrew Rowan, Ph.D.
Director, The GIS Center

Bob Tucker, Ph.D.
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10 YEARS OF STREAMWATCHING
Steve Yergeau, Watershed Assessment Specialist

This year marks the 10th anniversary of the StreamWatch Program. StreamWatch uses the watchful eyes and willing hands of volunteers to help protect water quality in the Millstone Watershed. The New Jersey Department of Environmental Protection (NJDEP) currently conducts monitoring at a few sampling stations only a few times a year in the Millstone Watershed. With the data collected over several years of monitoring, NJDEP has assessed the impacts of point- and nonpoint-source pollution.

As recently concluded by NJDEP, the Watershed's severest problem is elevated nutrient concentrations (such as nitrates and phosphates), originating primarily from nonpoint sources. This was identified as a particular problem in the summertime when the streamflows are lowest. The predominant nonpoint pollution sources in the Watershed are those associated with suburban development, which in the increase throughout Central New Jersey. In the Millstone Watershed alone, developed lands increased 24.2% between 1986 and 1995. Runoff from construction sites, compacted lawns, storm sewers and roads is contributing to excessive sediment loading and nutrient pollution to area waterways.

This changing landscape of Central New Jersey required a change in the way that the rivers and streams were monitored. Since government agencies could not monitor all the collective and individual actions that may harm our environment, it is important for everyone to play a role in the stewardship of the natural world. StreamWatch was developed in the spring of 1992 by the Stony Brook-Millstone Watershed Association as our response to this need.

After a decade of keeping our eyes open to the quality of our streams and rivers, what have we learned about their health? The short answer is: a lot.

Throughout 2002, I will be reporting on the data that you have gathered so diligently. I have broken the 265 square mile Millstone Watershed into four sub-watersheds to highlight a different portion in each issue of *The StreamWatcher*. The four areas are:

- Upper Millstone Watershed – The drainage area from the Millstone River headwaters in Millstone Township until it drains into Carnegie Lake (data reported in the February 2002 *The StreamWatcher*).
- Lower Millstone Watershed – Carnegie Lake until the Millstone River reaches the Sattlan River (data reported in the May 2002 *The StreamWatcher*).
- Stony Brook Watershed – The entire Stony Brook and its tributaries as it drains into Carnegie Lake (data reported in the August 2002 *The StreamWatcher*).
- Bedon Brook Watershed – The entire Bedon Brook and its tributaries as it drains into the Millstone River (data reported in this issue of *The StreamWatcher*).

Please feel free to contact me at (908) 737-3735 or stonybrook@watershed.org for more information regarding the Stony Brook Watershed.

November 2002 1 The StreamWatcher

Results were published throughout 2002 reporting on the past decade (1992 – 2002) for our chemical & biological assessment programs (CATs & BATs).

KEEPING VOLUNTEERS INTERESTED



KEEP THEM INFORMED

- Provide educational opportunities on water quality, or other environmental issues (for example Natural Lands Network)

KEEPING VOLUNTEERS INTERESTED

KEEP THEM ENTERTAINED

Volunteer Parties

- Holiday Open House (Winter)
- Volunteer Picnic (Summer)



KEEPING VOLUNTEERS INTERESTED

KEEP THEM INVOLVED

- Provide other opportunities for volunteering their time and energy
 - Spring and Fall Field Days
 - Restoration Projects

Lessons Learned from Volunteer Monitoring

- **Start Small**
- **Keep Your Goals, and Those of Your Volunteers, Realistic**
- **Planning Pays Off**
- **Make Connections**
- **Develop Volunteer Leadership**
- **Pamper Your Volunteers**
- **Use Your Data**

THANK YOU!

